

IT IS CLAIMED:

1. A device for dispensing a product resulting from mixing at least two liquid substances that react with each other upon contact to create gas and to thereby create a pressure that would cause a gas backflow pressure capable of causing damage to a portion of said device, said device comprising:
 - (a) an elongated sheath forming an essentially closed mixing and reaction chamber;
 - (b) a dispensing orifice located at an end of said sheath for dispensing said product;
 - 10 (c) a check valve in essentially sealed relationship with said sheath and located at an end of said sheath opposite to said dispensing orifice for preventing backflow of said gas, said check valve having at least one admitting opening to admit said substances from a feeding system, an open interior portion for passing said substances through said check valve, and at least one exit opening to permit said substances to pass into said chamber, said check valve further comprising a closing element to close said exit opening upon creation of backflow pressure within said chamber thereby preventing damage to said feeding system;
 - 15 (d) a static mixer for mixing said substances and located within said chamber between said dispensing orifice and said check valve; and
 - (e) a feeding system connected to said check valve for feeding said substances into said check valve.
2. The device of claim 1, wherein said check valve is a plug-like member fitted into said sheath.
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3. The device of claim 1, wherein said closing element comprises a rod having a shaft and closing end, said rod capable of axial movement due to pressure created within said check valve whereby said closing end is capable of being moved to close said check valve against back pressure created within said mixing and reaction chamber.
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4. A method of dispensing a reaction product formed from reaction of least two liquid substances comprising:
- (a) feeding at least two substances from a feeding system into a check valve located at an end of a mixing and reaction chamber of a dispensing device;
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- (b) passing said substances through said check valve and into said chamber which contains a static mixer where said substances are mixed and react with each other to form a reaction product, including a gas, thereby creating pressure within said chamber;
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- (c) dispensing said product from said device;
- (d) ceasing feeding said substances into said check valve and said chamber, whereby a back pressure is created in said chamber;
- (e) preventing said back pressure from entering into said feeding system, and thereby avoiding damaging said system by closing said check valve, said check valve being closed due to said back pressure; and
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- (f) continuing to dispense said reaction product.
5. The method of claim 4, wherein the substances react to form cured polyurethane.
6. The method of claim 5, wherein said substances comprise polymethylene polyphenyl isocyanate and 4,4 diphenylmethane diisocyanate as a curing agent.
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7. The method of claim 6 further comprising dispensing said cured polyurethane product into a water leak to seal said leak.
8. The method of claim 7, wherein said leak is up to about 150 gallons per minute or higher.
- 5 9. The method of claim 8, wherein said leak is from about 5 to about 150 gallons per minute.